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ABSTRACT

One prominent approach to school improvement focuses on strengthening school accountability. This paper explains how three main issues keep the theory (which links school accountability to school performance) from working in practice. The issues involve: (1) implementation controversies dealing with standards, incentives, and constituencies; (2) insufficient efforts to build organizational capacity; and (3) failure to recognize the importance of internal school accountability. The study examined the nature and extent of accountability in 24 "restructuring" elementary, middle, and high schools in 16 states. The data indicate that strong accountability was rare; organizational capacity was not related to accountability; schools with strong external accountability tended to have low organizational capacity; and strong internal accountability tended to reinforce a school's organizational capacity. The findings suggest that external agencies trying to increase school accountability should pay more attention to stimulating the kind of internal accountability that is linked to organizational capacity. The data were derived from observation, interviews, surveys of teachers and students, and document review. Appendices contain methodological notes, 2 figures, and 2 tables. (Contains 17 endnotes and 57 references.) (LMI)

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Accountability and School Performance:

Implications from Restructuring Schools

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September 15, 1996

FINAL DELIVERABLE

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Abstract

After describing implicit theory that links school accountability to school performance, this article explains how three main issues keep the theory from working in practice. The issues involve a) implementation controversies dealing with standards, incentives and constituencies; b) insufficient efforts to build organizational capacity and c) failure to recognize the importance of internal school accountability. A study of 24 restructuring schools showed that strong accountability was rare; organizational capacity was not related to accountability; schools with strong external accountability tended to have low organizational capacity; and strong internal accountability tended to reinforce a school's organizational capacity. Implications for accountability policy are discussed.

Overview

Agencies external to schools, especially local school districts and states, have legal and political responsibility for the quality of education in the United States. The extent of responsibility at the different levels of government varies and is subject to dispute, but there is wide agreement that delivering education is ultimately a responsibility not simply of each individual school, but of the broader polity which funds and grants schools the authority to operate.

Spurred by reports of high drop-out rates among students from disadvantaged backgrounds and overall low student achievement, districts, states and other agents external to schools, especially business firms and organizations of citizens and parents, have become increasingly concerned to establish policies that elevate school performance. A prominent strategy has been to try to strengthen school accountability. According to Kirst (1990), 40 states increased their accountability mechanisms during the 1980's. Will increased accountability of schools to external agents improve student performance throughout the United States?

As part of a study of school restructuring, we examined the nature and extent of accountability in 24 "restructuring" elementary, middle and high schools, located in 16 states and 22 districts. We were interested in the forms of accountability apparent in these schools, whether some schools experienced more comprehensive accountability demands than others, and what effects "strong" versus "weak" accountability seemed to have on teaching and learning in the schools. The design of the study did not allow us to specify direct connections between school accountability and student achievement. But analysis of how

accountability worked in the schools revealed three main problems with the proposition that strong external accountability will enhance school performance.

The first problem is the difficulty of implementing comprehensive external accountability across U.S. schools. The second is the recognition that even if external accountability could be implemented, this would not guarantee high performance of schools that began with low organizational capacity. The third is that strong accountability can occur internally within a school community; it need not be prompted by demands from external agencies.[1] This article explains these points and discusses their implications for district, state or federal policy aimed at enhancing school accountability. To set the stage we first define accountability and its assumed connection to organizational performance.

Accountability and Organizational Performance: the "Theory"

Historically, the concept of accountability has reflected a relationship between a steward or provider of a good or service and a patron or agent with the power to reward, punish, or replace the provider (Kirst, 1990). A variety of criteria could be applied to the provider's behavior and performance. For schools in the contemporary setting, accountability can be defined as the process by which school districts and states, or other constituents such as parents, attempt to ensure that schools and schools systems meet their goals.[2]

Accordingly, a complete school accountability system should include at least four parts:

1. Information about the organization's performance (e.g. test scores).

2. Standards for judging the quality or degree of success of organizational performance (e.g. school mean achievement score to be in the top half of the distribution for schools with comparable demographic characteristics).

3. Significant consequences to the organization (i.e. rewards and sanctions) for its success and failure (e.g. bonuses to teachers in the school for the years when the school meets or exceeds the standard).

4. An agent or constituency that receives information on organizational performance, judges the extent to which standards have been met, and distributes rewards and sanctions (e.g. the state department of instruction).[3]

How would these four parts of an accountability system enhance school performance? The assumption is that teachers will try harder and become more effective in meeting goals for student performance when the goals are clear, when information on the degree of success is available and when there are real incentives to meet the goals. This theory offers a compelling explanation for organizational performance in commercial enterprises where customers and clients exercise careful surveillance of the quality of output. High customer satisfaction leads to increased demand for the product or service and higher profits which the producer will act to maximize. Customer dissatisfaction leads to lower demand and economic loss. Assuming that business organizations will behave in ways to continue their existence and to maximize the economic rewards, the accountability system is a major stimulus for the organization's workers to produce high quality goods and services.

Imagine two schools - one with none of these four components, another with all of them. School A collects virtually no systematic information on student performance, except

for teachers' grades. Within individual courses, the staff administers subject matter tests, but they have not used consistent standards to evaluate student performance across subjects or over time. Neither the district, state or parents have pressed the school to demonstrate how successful it is, and the school never receives any rewards or sanctions related to performance. In contrast, school B gathers common information on student achievement each year in each of the four main academic subjects by administering performance exams developed in a new state assessment scheme. Teachers score the exams according to a set of standards that distinguishes among proficient, satisfactory and inadequate student performance. The school's teachers receive bonuses from the district each year that it increases the proportion of students who reach the proficient level on all tests. According to the theory, if we were to compare academic performance at the two schools - for example, by using school B's tests and standards - school B would show higher performance. But if school B's full accountability system were implemented at school A, the theory suggests that school A's performance would improve over time.

One way of testing the theory would be to measure the extent that all four components of accountability are present for a school and to examine, in a large number of schools, the extent to which strength of accountability is associated with a common measure of student achievement, independent of other factors that affect student achievement. Due to a small sample of schools, diversity among school goals, and lack of comprehensive measures of student performance across schools, the present study did not permit such a test. But we did examine, in an exploratory fashion, the workings of the four components of

accountability in 24 restructuring schools to inquire about the promise of the theory that stronger external accountability will elevate school performance.

Applying the Theory to Schools: A More Complex Picture

As indicated above, we discovered three main unresolved issues in the theory (implementation, organizational capacity, and internal accountability), which we will describe in more detail here. This discussion is based on logical analysis of the theory of accountability and organizational performance, prior research on school change, and on initial examination of experiences among the 24 schools studied. To test these initial observations more carefully, we conducted a closer empirical analysis of the school data according to the design described later. But before presenting the more specific findings, we explain the general observations that launched the subsequent investigation.

Implementation Issues: Standards, Incentives, Constituencies

Virtually all of the schools we studied had implemented the first requirement for a strong accountability system: they collected information about student performance and disseminated it to external agencies, such as the district and state, and to parents. Only rarely, however, was this information evaluated according to clear standards for school success specified by external agencies, and generally there were no significant material incentives for schools to succeed.

There is widespread agreement in the U.S. that schools should be held more accountable to standards for student performance (Johnson & Immerwahr, 1994; Johnson et al., 1995). At the same time, however, controversy persists on how to implement standards and what the specific standards should be. At the high school level, for example, there is

often a perceived conflict between reducing the dropout rate or increasing the graduation rate on the one hand, and insisting upon high standards of academic performance as criteria for retention in school and graduation. Even when discussion is limited to standards for academic achievement, the debate on national standards has revealed hotly contested conceptions of desired student outcomes (Apple, 1996). For example, one persisting position emphasizes student absorption of knowledge as traditionally organized, and another emphasizes student construction of meaning or "teaching for understanding" (Newmann, 1993).

Even with general agreement on a traditional or constructivist orientation toward teaching and learning, dispute continues over whether school performance should be judged according to individual student improvement or on absolute performance standards, whether it should be judged relative to the social background of the student population, and whether there should be different standards for students in different programs, such as bilingual, special education, college preparatory, or technical-vocational programs. In short, arriving at clear standards for school performance involves a thicket of professional and political issues that neither districts, states, nor professional organizations have been able to solve.[4]

Linking significant incentives or sanctions to school success and failure poses another significant implementation issue, even if standards for success were in place. Strong financial incentives, especially teacher bonuses for high school performance, might well stimulate greater effort. But without major reallocation of education spending, this strategy has little prospect for success, given the public's reluctance to spend more on education.[5] Apart from direct financial rewards, it has been argued (e.g. Maeroff, 1988) that high quality

professional working conditions, especially more time to plan, to work with mentors and participate in professional development, would provide important incentives for teachers to perform at higher levels. These conditions can offer powerful rewards, but they are also expensive, and if they are critical to school success, should be available in all schools, not allocated only to the more successful.

Consistent with findings by Wohlstetter, Smyer & Mohrman (1994), we found that neither restructuring schools nor their teachers received significant material consequences based on the performance of their students. Some states and districts have compensated teachers or schools to reward school performance and teachers' demonstration of skills and participation in professional development, but these are rare (Kelly & Odden, 1995). Some have implemented sanctions for exceptionally poor performance by closing schools or taking them over. Voucher systems that fund schools primarily through voluntary subscription by parents would, presumably, attach significant consequences to school performance, because the school's very existence would depend upon demonstrating satisfactory performance to parents. Some evidence indicates, however, that parents' choices of schools are not based primarily on the schools' records of high academic performance (Rubenstein, Hammer & Adelman, 1992).

Consideration of the standards and incentives issues raises a third problem in implementing strong external accountability: to what external constituency(ies) should schools be accountable? Schools are bombarded by demands from different external groups with political-legal authority to influence the schools: the local school board and district administration, state and federal agencies, and parents. Demands from these groups (and

from other interests such as business) vary considerably, and as a whole they fail to act in concert to define standards and incentives that could enhance accountability for student or school performance (Levin, 1974, Fuhrman, Elmore & Massell, 1993). The challenge to coordinate and focus expectations from external groups has been clearly made in the argument for "systemic reform" (Smith & O'Day, 1991). To implement a strong accountability system will require resolving the political problem of deciding how to allocate authority for standard setting and incentives among competing constituencies.

Organizational Capacity

We have raised problems of implementing a strong external accountability system, but assume for a moment that these difficulties could be overcome and that a strong accountability system could be implemented. Would this necessarily enhance school performance? Advocates for strong external accountability, as well as critics, recognize that the formal components of accountability aren't enough. First, the standards themselves must call for more ambitious, high quality intellectual work for all students. Stricter accountability to deliver mediocre curriculum, or to expect more challenging academic work only from economically privileged students would be no advance. Second, even if external authorities provided higher quality standards and inducements, many schools would lack the capacity to meet them. To meet higher standards, major advances will be needed in the quality of technical resources (such as curriculum and assessment materials, laboratory equipment, library and computing facilities), in professional development for staff, and in finding ways to balance strong external accountability with significant autonomy for schools to craft programs that respond to their unique social contexts.[6]

Our study of restructuring schools confirmed the importance of these concerns, and we think they can be viewed most usefully as interrelated dimensions of a more fundamental concept - school organizational capacity. Concern for building capacity has entered reform discourse (Darling-Hammond, 1993; David, 1994; Corcoran & Goertz, 1995; McDonnell & Elmore, 1987; O'Day, Goertz, & Floden, 1995), but without unanimity on a specific definition.[7] Proposed ingredients of organizational capacity include teachers' professional knowledge, effective leadership, availability of technical and financial resources, and organizational autonomy to act according to demands of the local context. To the extent that these factors reach high levels within a school, one would expect an increase in a school's capacity to deliver high quality instruction which, in turn, ought to produce high quality student achievement.

This formulation makes sense, but, in our view, needs to go one step further. The critical defining feature of organizational capacity is the degree to which the human, technical and social resources of an organization are organized into an effective *collective* enterprise. The separate items above make critical contributions to organizational capacity, but only when they are organized and coordinated to advance the organization's goals. For schools, the key to effective coordination and organization of these resources is shared commitment and collaboration among staff to achieve a clear purpose for student learning. This shared commitment and collaborative activity is what harnesses otherwise disparate technical and human resources into an effective collective enterprise.[8]

Our study measured school organizational capacity along three dimensions: teacher knowledge and skill, school autonomy to act, and shared commitment and collaboration

toward a clear purpose for student learning. In many schools, staff disagreed about fundamental standards for student success and had great difficulty working together toward a common school purpose. Neither the promulgation of external standards for school performance, new curriculum and assessment practices, additional staff development, provision of advanced technology, or site-based management necessarily generated consensus and collaboration for a common mission. Some schools were far more successful than others on this dimension, but achieving unity and effective collaboration within schools seemed to be a daunting challenge, independent of the extent of external accountability, technical resources, professional development, or school autonomy.[9]

Although we define organizational capacity as a property internal to schools, agents external to schools can conceivably help to build organizational capacity through provision of technical resources (including formulation of high standards for curriculum and performance), professional development, and deregulation (Newmann & Wehlage, 1995; Wehlage, Osthoff & Porter, 1996). Strong external accountability systems might also help to generate or reinforce school consensus and staff collaboration focused on clear goals for student learning, but as we shall see, major problems arise in aligning external standards and inducements with the internal cultures of schools that define their operating educational missions.

Internal Accountability

As indicated earlier, the concept of accountability implies strong influence by a patron, client or other agent external to a service provider. The agent presumably sets standards for performance and distributes incentives and sanctions. In some schools,

however, we found that essential components of accountability were generated largely within a school staff. Staff identified clear standards for student performance, collected information to inform themselves about their levels of success, and exerted strong peer pressure within the faculty to meet the goals. In some schools, strong internal accountability was accompanied by compatible external accountability, but in others, internal accountability existed without, or even in opposition to, external accountability requirements. These internally generated accountability systems constituted a major source of cohesion within the school. Thus, internal accountability can be seen both as a building block of organizational capacity, but also as a result or product of high organizational capacity.

To summarize, the difficulties of implementing a common set of clear standards and powerful inducements across a wide range of schools, the nature and importance of organizational capacity to high performance by schools, and the possibility of internally generated school accountability present a more complex picture of the connection between accountability and school performance. This formulation seems to suggest at least two possible implications relevant to the implementation of strong external accountability systems. First, to the extent that external accountability is difficult to implement because of issues raised above, school accountability might still be achieved through internal mechanisms. Second, to the extent that strong external accountability can be implemented, if it promulgates standards and incentives hostile to a school's internal accountability system, it may undermine school organizational capacity and thereby defeat its intended purpose. Ideally, efforts to increase external accountability should be closely coupled with those that try to enhance school organizational capacity. These implications will be clarified as we

elaborate upon more specific empirical findings on the nature and extent of accountability and organizational capacity in 24 restructuring schools.

Accountability and Organizational Capacity in Restructuring Schools

Study Design

This analysis draws on data from the five-year study of school restructuring in the USA by the Center on Organization and Restructuring of Schools, University of Wisconsin-Madison. Twenty-four schools participated in the study and each met a number of criteria for restructuring. Schools were equally divided among elementary, middle and high schools, and reflected a broad spectrum of location, size, and student body compositions. Here we examine evidence from 20 of the schools.[10]

The study involved two week-long visits by Center research teams to each school during one year, in which they observed classes and meetings, and interviewed teachers, administrators, and others active in restructuring. Survey data of all teachers and of students in the target grade (5th for elementary, 8th for middle, 10th for high schools), as well as school demographic and achievement data, were also obtained. Research teams prepared extensive school reports that served as the database for qualitative evidence for each school. Two members of each team then coded key aspects of structural and programmatic features of their school. School reports, upon which the coding was based, addressed the defining components of each school's accountability system.[11]

We began by asking, what does accountability look like across the sample of 20 restructuring schools? Based upon the coding of reports and consistent with the framework

presented above, we determined whether or not a school's operating accountability system included the following:

- Provisions for information on student performance, explicit standards for student performance, and consequences to the school or teachers for student success or failure.
- Information, standards, and/or consequences that were required by an external agent (district and/or state), developed by the school itself, or both.
- An external agent that required something specific beyond mandatory standardized testing as part of the school's accountability system or that required the school to develop its own accountability system.

The appendix (part I) presents a partial list of items from the school codings employed in this analysis.

According to the coding, the district or state required information on performance from all schools via standardized testing, but typically failed to specify any standards or consequences. For many schools, this information seemed to serve symbolic purposes only. At the same time, a number of schools exhibited information, standards, and consequences independent of any external requirements. This finding suggested that some schools maintained *internal* accountability systems, and led us to review qualitative data from school reports to learn more about the significance of internal vs external agents in establishing school accountability.

To address the concern that school accountability systems need to be stronger and more rigorous, we sought to group schools by the relative strength of their existing

accountability system. If a school had all components of information, standards, and consequences (either externally-required, internally-generated, or a combination), it was considered to have a strong accountability system. At the other extreme, if a school had no information beyond standardized testing, no standards, and no consequences, it was considered to be weak. In the middle were schools with some combination of information, standards, and consequences (regardless of source), but not all three.

We also sought to measure a school's organizational capacity to allow an examination of its association with accountability. For this measure, we employed both the teacher survey and codings of school reports. Items were selected that demonstrated the extent to which key aspects of organizational capacity -- knowledge and skills, the exercise of power and authority, and shared commitment and collaborative activity to achieve a clear purpose for student learning -- were present at a school. The appendix (part II) presents items from teacher surveys and school codings used in this analysis.[12]

In the next section, we discuss results, organized around five key findings.

Findings on Accountability and Organizational Capacity

1. Only seven of the 20 schools had strong accountability systems.

These seven schools had all four components of a complete accountability system: information, standards, consequences, and an agent to judge organizational performance. Most schools (13 of 20) fell short on explicit standards for student performance and significant incentives or consequences for student success. Of these, five had weak systems and eight were mid-range. Table 1 presents the schools by level according to the strength of their accountability system.

INSERT TABLE 1 HERE

As Table 1 indicates, of the seven strong systems, three were primarily school-based (i.e., developed internally), three were mandated by external agents, and one had both external and internal components. We also note that four of the seven schools with strong systems were high schools, and only one of the seven high schools had a weak system.

Two schools illustrate differences in the strength of accountability systems. In a weak environment, teachers at Fremont High gave state mandated achievement and basic skills tests and district criterion tests in the academic subjects. But no one at the school, district or state seemed to do much with results. Scores were not published and there were no formal consequences for either the school or individual teachers tied to results. Most staff reported that they felt little or no pressure for student success on the tests. But many anticipated a major change in the following year with the implementation of new state-mandated performance assessments with explicit standards.

In contrast, South Glen High was required by the state to administer end-of-year tests in required courses in English, math, the sciences, and social studies. These tests -- viewed by many staff at the school as tests of factual recall -- were intended to hold schools accountable for teaching the state curriculum frameworks. The district also required final exams for required courses and that scores count 20% of a student's grade. The state also required students to pass competency tests in reading, writing, and grammar to graduate. As part of the recent shift to hold individual schools more accountable, South Glen had to develop a school improvement plan with 10 indicators of performance other than test results. Although standards for adequate performance on plans were not defined by the state, there

was the potential threat of closing schools for consistently poor performance. Teachers also received up to a 3% salary supplement for meeting individual and school-wide goals.

South Glen illustrates how external agents, particularly the state, can require elements of a strong accountability system. In contrast, Okanagon Middle represents a school for which requirements for accountability from the district or state were quite weak. But as charter school, Okanagon was charged with creating its own accountability system. Students had to meet six "challenges" each year they attended the school and thereby earned the Okanagon Certificate. Staff established benchmarks for satisfactory completion of each challenge and set the goal that 80% of the graduating eighth graders would earn the certificate. In addition, staff created and administered quarterly school-wide performance assessments in math and writing. Teachers serving on the school's curriculum committee developed scoring rubrics and significant staff development time was devoted to training the whole staff in scoring. Members of the curriculum committee regarded these assessment tasks as powerful mechanisms for changing curriculum and instruction, and a way to hold each teaching team accountable for the academic progress of their students.

2. *Schools varied considerably in the extent of organizational capacity.*

As we argued above, a school accountability system alone is unlikely to advance student learning. It must be combined with a high level of organizational capacity. Table 2 shows the schools grouped by level and their mean scores of organizational capacity using combined, standardized scores from teacher surveys and researchers' coding. School scores are relative to the sample of 20 schools, ranging from a high of 1.64 (Lamar Elementary) to a low of -1.81 (Island High) with an overall sample mean of -.01.[13] As a group, the

elementary schools fared significantly better than the middle and high schools. The overall mean for the elementary schools was .78, for the middle schools -.09, and for the high schools -.21. The three top schools were all elementary (Lamar, Ashley, and Humboldt) and the bottom four were all high schools (South Glen, Fremont, Wallingford, and Island).[14]

INSERT TABLE 2 HERE

Lamar Elementary exemplifies a school with high organizational capacity. There, teachers team-taught in multi-age clusters (two teachers and 64 students per cluster), planning lessons and units together and providing feedback on each other's teaching. Collaboration was focused on implementing the inquiry-based instructional philosophy that was shared by the whole staff. Faculty decisions on school-wide curricular themes, hiring, and on-going operations of the school provided opportunities for the staff to enhance their program and revealed their influence and authority on important issues.

In contrast, Sumpter Elementary, scoring relatively low for elementary schools and in the middle for the whole sample, was a teacher-run school and valued initiative and innovation among the staff. But these efforts were largely independent enterprises by teachers, resulting in a proliferation of fragmented programs which undermined a common purpose and collaborative activity. Sumpter and Lamar represented the contrasting poles of an individual vs collective approach to school change.

3. School accountability and organizational capacity are not necessarily related.

When we made the distinction between accountability and organizational capacity earlier in this paper, we assumed a certain degree of independence between the two. One could imagine a school with strong accountability and low organizational capacity and a

school with high organizational capacity and weak accountability. Having rated the schools on each variable, we now examine their actual relationship.

The association of a school's organizational capacity to the strength of its accountability system is shown in Figure 1. There seems to be no clear relationship. The seven schools in the strongest accountability environments ranged from the lowest to near the highest in terms of their capacity. A similar trend is evident in the schools with moderate and weak accountability systems. These findings are consistent with our analytic point above. From a practical standpoint, the challenge is to craft a combination of accountability *and* organizational capacity to improve school performance.

INSERT FIGURE 1 HERE

Enhanced school accountability will have positive effects on the organization, or so the theory goes. By looking closer at the individual schools with strong accountability systems, we shall see the ways in which accountability can influence organizational capacity. In our discussion of the final two findings, we highlight these seven schools and demonstrate how accountability can, in some contexts, advance organizational capacity while in others, it can detract from it. Our discussion clarifies the importance of an internally generated system, as well as the interaction of externally-required and internally-generated aspects of accountability.

4. *Schools with strong external accountability tended to be low in organizational capacity.*

Seven schools had strong accountability systems. Figure 2 shows how each of these schools fared in terms of their organizational capacity. As indicated, three schools had

strong internally-generated accountability systems, three schools had strong accountability systems that were mandated by external agents, and one had a strong system deriving from both sources. In Island and South Glen High Schools (scoring -1.81 and -.84 respectively), we see how external accountability systems erected important barriers for organizational capacity.

Insert Figure 2 here

South Glen. South Glen High's accountability system was described above. The relatively high-stakes assessment system required by the state, with its emphasis on basic skills and content mastery, was not considered by staff to provide very valid measures of student performance. One social studies teacher, for example, complained about questions relating to obscure court cases that had appeared on an end-of-course exam. The staff did establish specific school-wide goals on attendance, drop-out rates, and the like, but they had been unable to agree on a focus for student learning to replace the kind of mastery required by the tests. For the most part, teachers remained isolated in their professional work and concerned with meeting state mandates in each subject. While teachers gained formal positions in the decision-making structures of the school, their influence and involvement continued to be limited by state and district directives and a legacy of top-down management.

Island. Island High represented a similar scenario. Its state had mandated a strong accountability system that included subject matter tests with both traditional and open-ended questions, portfolios, and student performance events. The state set improvement goals for schools in all academic areas. No consequences for failure to meet goals had been

implemented, but the possibility of eventual school closing by state authorities existed. Staff at each school were responsible for developing a plan to meet the goals set out by the state.

Teacher disagreement in their reactions to the new system weakened organizational capacity at Island. Many saw it positively and consistent with their principles for restructuring, drawn from the Coalition of Essential Schools (see Sizer, 1985; Muncey & McQuillan, 1993). Others disapproved and resisted, claiming that the open-endedness of state assessment tasks was not well-suited to Island's increasingly diverse and disadvantaged students. Initiatives such as professional development activities for the new assessments, interdisciplinary teaching teams, and faculty committees for teacher decision making, could not persuade resisters to join the reform efforts. The state's strong external accountability measures became a bone of contention for staff, failing to stimulate a collective focus on the newly established goals for achievement or enhance teachers' competencies to meet them.

Careen. The third school with a strong external accountability system, Careen Elementary, fared significantly better on the measures of organizational capacity (.58). But the organizational capacity they attained was threatened by the external accountability system.

At Careen, the state required testing in reading and math of all students in grades 3 through 8. Students in grades 4 and 8 also took exams in writing, science, and social studies. Additional information on attendance and drop-out rates was also submitted to the state. School standards were set at four levels: exemplary, recognized, acceptable, and low-performing. Scores were published by level -- district, school, and classroom, which made it possible to identify student scores with individual teachers. The state superintendent had the authority to audit school districts based on this system and ultimately close low-performing

schools. A district administrator who was active in starting Careen in the fall of 1992 called this "a very high-stakes testing program" which functioned as the state curriculum.

This system, with its degree of emphasis on basic skills, conflicted directly with the program philosophy of Careen Elementary. Curriculum and instruction were focused on inquiry-oriented activities that involved real-world application of knowledge. This emphasis on "applied learning," as it was called at the school, made the school an appropriate site to experiment with alternative forms of assessment. So alongside the state-mandated system, students produced portfolios and teachers were involved in serious discussions to establish standards of quality for assessing them. Teachers were united in their enthusiasm for applied learning and were hired because of their affiliation with this philosophy. They also participated, as a school staff and with teachers from other district schools, in professional development activities focused on applied learning. According to teachers, the environment allowed them to grow and develop their skills as educators. These factors contributed to a fairly high degree of organizational capacity.

On the other hand, teachers were limited in their opportunities to work together collaboratively. They taught in self-contained classrooms and continued control from the district office limited their influence in further developing and implementing their mission. Teachers felt the district failed to follow through on commitments to have the state accountability measures waived for the school. There was considerable concern at the school regarding these measures, not because of any danger of being closed, but because as an experimental school, staff felt the need for legitimacy in the eyes of the community. The

strength of the state system pressured teachers to shift their attentions to more traditional goals.

Finally, we turn to the one school that had *both* a strong external a strong internally-developed accountability system. Flinders High scored -.11 on organizational capacity, third highest among the seven high schools in the sample.

Flinders. In addition to state assessment exams, the school was required to submit periodic reports to the district that documented its efforts to improve student performance. Specifically, Flinders had to submit to the district an annual Academic Improvement Plan (AIP) that set student performance goals and outlined strategies for achieving them. Each department developed specific goals. Flinders' staff created a Monitoring and Evaluation Committee to ensure that the school achieved its performance standards and other curricular goals. The committee issued annual reports that documented each department's record in achieving the goals established in the AIP. These reports, the School Performance Profile (SPP), were submitted to school administrators and district officials. The district officially recognized schools that achieved their AIP by placing them in a "distinguished school program." Schools that fell short of their AIP goals and under-performed on state assessments over a period of time became "target schools." It was not clear what kinds of consequences resulted from these designations.

The strong external accountability system contributed to Flinders' focus on conventional standards of student performance. But this failed to boost organizational capacity. Flinders' teachers disagreed on goals for student achievement and many were critical of the direction the school was taking in response to the accountability requirements.

While Flinders had adopted many structural innovations -- house programs (schools within the school), divisions (interdepartmental organizational units), and teaching teams -- this compartmentalized organizational pattern made it difficult for faculty to build a strong sense of shared purpose.

In theory, teachers at Flinders had been empowered by site-based management to participate in school decision making. The district's role of holding the school accountable for goals the school set for itself appeared on the surface to shift considerable power to the school site. Conceivably, this could have opened up opportunities for the development of more focused commitments. In practice, governance was conducted by a small cadre of people who were the "movers and shakers" within the governance system. Many important decisions about staffing, curriculum, and budget were made unilaterally by the school's Administrative Team or by the principal. As one teacher noted, "It is still very top down here." Frustration with constraints on participatory decision making had led several teachers to leave the school.

5. Strong internal accountability advanced organizational capacity in schools.

In three schools, strong accountability was generated internally by the school community. At Cibola High, Okanagon Middle, and Humboldt Elementary, this stimulated consensus on a clear purpose for student learning and staff collaboration to achieve it. As shown in Figure 2, these schools had the highest levels of organizational capacity among the seven with strong accountability systems. For each school, we will describe how accountability seemed to enhance organizational capacity, as well as how capacity contributed

to strong internal accountability. The role of external agents in supporting both internal accountability and organizational capacity is also discussed.

Cibola. Cibola demonstrated a relatively high level of organizational capacity (.66), especially for a secondary school. Since its inception in 1985, the school embraced the principles of the Coalition of Essential Schools and sought to encourage "students to use their minds well, and prepare them to live productive, socially useful and personally satisfying lives."

To support their mission, Cibola created an intricate accountability system that combined significant autonomy from regulations with an internally-developed process for on-going review and improvement. As part of the alternative high school division of the district, the school was insulated from many district mandates and requirements that applied to regular schools. The staff did administer the district's yearly standardized reading test for students in grades 7-10 and the state competency tests for graduation. These provided a source of credibility for the school, but there were no rewards or sanctions from external groups for student performance levels on these tests.

However, Cibola's independence from external requirements did not lead to a weak environment for accountability. Staff acted on that independence to develop their own accountability system that centered on graduation by exhibition and yearly review committees.

To graduate, students completed portfolios in 14 areas, of which 7 were to be presented as exhibitions to a graduation committee comprised of the student's faculty advisor, another teacher, another adult of the student's choosing, and an assigned student. Students'

performance on their exhibitions was judged on five criteria: view point, connections, evidence, voice, and conventions. There had been continual debate, and some conflict, among faculty members about how to apply these standards. But the process helped staff to stay focused on standards. One of the co-directors put it this way, "One of the ways that the teachers talk about standards over and over again is by sitting together and looking at the work of students. Not only in terms of judging it and grading it but also bringing it back to the classroom, bringing it back to habits of mind."

At the end of each year, Cibola invited a committee of "critical friends" to review their graduation requirements and portfolio exhibition process. The make-up of these groups varied depending on its purpose. For example, a cross-section of assessment experts, professional educators, and community members reviewed the school's entire graduation by exhibition process. Since teachers participated in the selection of the external committees and the design of this review process, faculty members respected the committees' conclusions, and discussed their implications for curriculum and assessment at the school. As one co-director summarized, "We use the outside world as a check on ourselves, but we answer to one another and to students and families."

Cibola's home-grown accountability system supported all components of school organizational capacity. The school was founded with the primary mission to teach students to use their minds well, and both the graduation process and evaluative criteria reinforced the shared purpose of developing students' habits of mind. Staff engaged in constructive debates about interpreting goals and developing effective strategies for achieving them. This inquiry stimulated staff to seek new knowledge and skills.

Staff exercised considerable influence over a broad range of issues, from hiring staff and developing new curriculum to making programmatic and budgetary decisions. For example, by setting standards for evaluating portfolios and exhibitions, teachers enhanced organizational capacity by further clarifying their collective focus on the intellectual quality of student learning. One of the co-directors argued that this was the most promising approach. He said, "I defy anyone anywhere to come in and say the state could do a better job of setting standards than Cibola can. I don't believe it...What people are doing are setting national standards in a vacuum; they are...better than nothing, but it's certainly not better than the enacted standard-setting practices that we have here."

Okanagon. Okanagon had the highest level of organizational capacity (1.17) among the middle schools in the study. Like Cibola, external requirements for accountability were quite weak, but school staff crafted a strong internal accountability system to reinforce their mission. We summarized above major elements of this system. Here we offer more detail and explain how the accountability system supported organizational capacity.

Teachers shared student work, both on the school-wide assessments and on class work entered into portfolios, with other restructuring schools in the region. Sponsored by the state, this public display created the opportunity for constructive appraisal and feedback, thereby contributing to the staff's understanding of elements of their assessment system. According to one teacher, this activity raised "the consciousness of accountability at the school."

The staff at Okanagon also held themselves accountable through an on-going longitudinal study, funded by a grant to the school. The school had the district conduct the

study which tracked the success of Okanagon graduates in their respective high schools. A central feature of the school's mission was to provide all students with one advanced curriculum so they would not be placed in lower academic tracks in high school. Data from the first class of graduates indicated that 80% of Okanagon students took an algebra or more advanced math course in 9th grade, compared to 50% of students from other middle schools, and that grades were the same for both groups.

Thus, with limited pressure or requirements from external groups, the staff at Okanagon, by developing their own system of accountability, enhanced the school's organizational capacity. Teachers exercised significant power and influence in crafting the six challenges, standards for meeting them, and specific rubrics for school-wide assessments. Staff reinforced their knowledge and skills through assistance and feedback from external experts on alternative assessments and other schools. Assessment tasks and the monitoring of their graduates supported their shared concern for intellectual quality and student success in high school.

Humboldt. Humboldt Elementary, one of the schools in the Accelerated Schools Project (see Hopfenberg, et al, 1993), showed one of the highest levels of organizational capacity (1.50). Here, external requirements for accountability were combined with rigorous internally-developed components.

Like Flinders, Humboldt was required to administer state assessment tests, all standardized achievement tests. In accordance with the Accelerated Schools model, Humboldt's staff attempted to ensure that all children scored at grade level according to national norms by 5th grade. The entire faculty had embraced this goal. In recent years,

Humboldt had performed well on these external assessments. Its student achievement scores were the highest in its district for elementary schools. School test scores were made public by the district, but there were no formal consequences for performance.

The test scores were also used by faculty members and administrators to informally evaluate the effectiveness of individual teachers' instructional strategies and the appropriateness of their curriculum. Teachers who were perceived to be performing less than adequately and who failed to respond to the prompts of administrators and other faculty members, were not welcomed at the school and ostracized by its professional community.

Unlike Flinders, conventional academic standards central to the accountability system had not hindered the staff at Humboldt from attending to the intellectual quality of teaching and learning. Staff incorporated commitments to grade level achievement *and* more authentic learning into their approach to staff development. They used weekly staff meetings as workshops for self-training, in which teachers focused heavily on implementing new math and language arts curricula. In both subject areas, teachers agreed that the new curricula helped them to practice more authentic instruction as reflected in their problem-based approaches and applications. They also began work on portfolio assessment. Other topics for staff development that year included continued training in the Accelerated Schools model and miscue analysis for reading. Clearly, Humboldt teachers did not perceive a split between more traditional and more authentic forms of teaching and learning.[15]

Humboldt teachers exercised widespread participation and influence to implement their instructional goals. Five "cadres" made recommendations to a steering committee, with the faculty-as-a-whole serving as the final decision-making body. Grade level teaching

teams, cross-graded teams, and other formal teacher groups supported broad-based decision making by staff. Conversations between teachers in the faculty lounge had produced school-wide interdisciplinary curriculum units and innovative instructional programs such as the school-within-a-school program. One of the assistant principals indicated that she frequently consulted with teachers in the lounge about daily decisions.

At Humboldt, external accountability requirements reinforced the staff's concern for grade level standards. Their concern for the intellectual quality of student learning, reflected in their enthusiasm for new curricula and portfolio assessment, was pursued alongside their grade level goals, and both seemed to contribute to an environment in which there were high expectations and pressures placed on teachers to perform well.

Conclusion

We began by asking how accountability systems might enhance school performance. We outlined the four central features of an accountability system (information on performance, standards, consequences, and an influential agent) and explained that these features raise complex issues for US schools, especially when agents external to schools attempt to impose them. We argued further that even when strong external accountability can be established, the performance of many schools could languish for lack of school organizational capacity. That is, external accountability alone offers no assurance that a school faculty will have adequate technical knowledge and skill, sufficient authority to deploy resources wisely, or shared commitment to a clear purpose for student learning. Theoretically, both accountability and organizational capacity is required for high

performance. But it is also possible that strong accountability can be achieved within a school community, without prescriptive mandates from a district or state.

Our study of restructured schools across the United States supported these ideas and helped to refine and elaborate them. The design did not allow a formal test of the proposition that school performance is highest with both strong accountability and organizational capacity.[16] But evidence did show that (a) only about a third of the schools had strong accountability systems; (b) organizational capacity, which varied significantly among the schools, was not related to accountability; (c) schools with strong external accountability tended to have low organizational capacity; and (d) strong internal accountability tended to reinforce a school's organizational capacity.

What are the implications of these findings? We have seen that strong external accountability is difficult to implement, and even when it is, it can present serious obstacles to or undermine a school's organizational capacity. We showed that when highly specific prescriptive standards connected to high stakes consequences are mandated by external authorities, this can deny school staff both the "ownership" (commitment) and the authority it needs to work collaboratively to achieve a clear purpose for student learning.

Does this mean that policy-makers and officials external to schools should abandon efforts to strengthen systems of school accountability? No. The findings must be interpreted in light of the special sample of schools included in this study. Our conclusions have been drawn from the experiences of restructuring schools who had taken "bottom-up" initiative to improve. We did not select districts or states with vigorous accountability systems and examine their effects on schools within their jurisdictions. The experiences of restructuring

schools do suggest, however, that efforts of external agencies to strengthen accountability should pay increased attention to stimulating the kind of internal accountability that we found linked to organizational capacity. As we saw in the examples of Cibola, Okanagon, and Humboldt, staff developed explicit school-wide standards focused on student performance, mechanisms for collecting and reviewing relevant information, and a culture of peer pressure that served as potentially significant consequences. These seemed to cultivate or reinforce widespread consensus around professional norms and offered a focus for collaborative activity which stimulated inquiry and searching for additional professional knowledge among staff. In each case, however, the school also relied upon important signals and resources in the external environment to define its standards and the kind of information collected.

Districts and states could support internal accountability in several ways. As we saw, they can set expectations that individual schools establish their own standards for performance and a responsible reporting system. They can support staff development opportunities for teachers within a school to formulate performance goals and ways to implement them. Districts and states can also establish and reinforce support networks of reform-minded schools to assist in sharing standards, assessment techniques, and review procedures for evaluation of student learning and school goals.

The point of such activities is not simply to craft procedures that "let schools do their thing." It is to elevate school performance by improving the standards to which schools aspire. External agents can make important substantive contributions by offering concrete examples of high standards for student performance in specific curriculum areas, approaches to assessment that demand high performance, and reliable ways of evaluating student

performance on the assessments. Without imposing uniform tasks or tests in all schools, districts and states, working with school networks and professional organizations, can, in these ways, still offer critical leadership in the definition of high standards for student achievement. And through such strategies they are more likely to enhance school organizational capacity.

Organizational capacity in schools can probably be built by means other than accountability. For example, schools that start anew with an identified mission, that control their own hiring of like-minded faculty, and that require parental choice and commitment to their educational program have an advantage.[17] But, to the extent that we take arguments for increased accountability seriously, strong internal systems of accountability, complimented by sponsorship and support from external agencies, can address the challenge of organizing technical, human, and social resources into an effective collective enterprise at each school.

Endnotes

1. Others have offered useful critiques of the accountability movement in the United States (Levin, 1974; Benveniste, 1985; Darling-Hammond, 1988, 1994; O'Day & Smith, 1993; Schrag, 1995; Cohen, in press). Our intent here is not to offer an exhaustive or in-depth examination of the movement, but to call attention to issues that seemed particularly salient in an empirical study of restructuring schools.

2. This modifies Rothman's (1995) definition to acknowledge the potential role of constituents other than districts and states.

3. Other researchers have identified distinct types or approaches to school accountability. For example, Kirst (1990), building on Levin (1974), distinguished among the following mechanisms to increase accountability: performance reporting, monitoring compliance with standards or regulations, incentive systems, market, changing the locus of authority on control of schools, and changing professional roles. Darling-Hammond (1988) construed accountability as five main types: political, legal, bureaucratic, market, and professional. These and other taxonomies illustrate that accountability relationships can vary substantially in the standards to be applied, in the incentives, and in the constituencies that have power over the provider.

   Our intent here is not to offer a new taxonomy for types, processes, or approaches to accountability, but to suggest that at a minimum, a complete accountability system of any type would include these four parts. At the same time, we agree with others that these minimal attributes, even if implemented, offer no guarantee of universally "good" or "desirable" effects. For example, Levin (1974) observes that standards

could be low or trivial; Darling-Hammond (1992) argues the need for other conditions to maximize high quality learning, equity, and the possibility of school improvement. Cohen (in press) shows how little is known about the effects of strong incentives, how difficult it would be to implement powerful incentives without more cultural agreement on educational goals, and how, in any case, strong incentives are unlikely to improve weak schools.

4. Arriving at standards for school performance may seem most problematic when considering standards for all schools in the nation, a state, or a district. We found, however, that serious conflict and confusion can ensue even when individual schools try to set their own unique standards for student performance (Newmann & Associates, 1996).

5. If the level of reward is small and available to only a small proportion of schools, the incentive is less likely to stimulate widescale improvement. Kelly and Odden (1995) argue that incentives should be funded sufficiently to reward all schools that meet performance targets.

6. The points are stressed in diverse sources; for example, Kearns & Doyle (1988), Clune (1993), O'Day & Smith (1991, 1993), Clune (1993), Committee for Economic Development (1994), Consortium on Productivity in the Schools (1995), Darling-Hammond (1988), Hanushek (1994), McLaughlin, Shepard & O'Day (1995), Rothman (1995).

7. Literature on restructuring and school reform addresses "capacity building" in a general sense (e.g. Darling-Hammond, 1995; McLaughlin, Shepard and O'Day,

1995). A more specific conception of organizational capacity is Lawler's high involvement model of organizational productivity (1991, 1992), which he applies particularly to organizations that engage in knowledge production, that exist in a changing environment, that have complex job tasks requiring constant discretion, and that are characterized by task interdependence within the organization. Based largely on analysis of business organizations, Lawler argues that performance increases to the extent that the following are available to workers at all levels of the organization: information about organization's success and processes; technical knowledge and skills; power to control work processes; and rewards for high performance. Mohrman, Wohlstetter & Associates (1994) argue that model can be usefully applied to school performance. Wohlstetter, Smyer & Mohrman (1994) used the model in a comparison between schools that have actively restructured to improve instruction versus those struggling to do so. Except for rewards for performance which were non-existent in both groups, the actively restructuring schools displayed more characteristics of "high involvement" organization. While provocative, these findings did not offer a useful test of the Lawler model, because the study failed to include a concrete definition of and achievement measures for high performing or high productivity schools.

8. This definition of school capacity represents a synthesis from research in different areas: school restructuring (Newmann & Wehlage, 1995); high involvement management in business organizations (Lawler, 1991, 1992) and schools (Wohlstetter, Smyer, & Mohrman, 1994); professional community in schools (Louis, Kruse, &

Associates, 1995; Talbert & McLaughlin, 1994), and other research on school organization and reform (e.g., Lee, Bryk, & Smith, 1993; Fullan, 1993; Fine, 1994; Lieberman, 1995; Cohen, 1995; O'Day, Goertz, & Floden, 1995)

9. Other research has documented both the importance and the difficulties of schools' achieving strong professional consensus and collaboration toward clear and demanding goals for student learning, especially in high schools. Powell, Farrar & Cohen (1985) illustrate the fragmentation of purpose characteristic of American comprehensive public high schools. Bryk, Lee & Holland (1993) and Bryk (1996) show how a strong religious ideology in Catholic schools, combined with decentralized control and voluntary membership fortify unity and cohesion that enhance achievement for all students. Talbert & McLaughlin (1994) show that departments, schools and districts can support or undermine teacher professionalism and that the quality of professionalism depends largely on the strength of teacher professional community within subject area departments.

10. For a more extensive discussion of the criteria for restructuring and school selection, see Berends & King (1994) and Newmann (1993a). In four schools, our measure of organizational capacity (see note 13) yielded unreliable findings, and these schools were omitted from the analysis.

11. Coding by each researcher was done independently. Any discrepancies between researchers in the coding were resolved through discussion until reached consensus.

12. Typically, researchers rely on either quantitative or qualitative data but our approach combined the two. Using both survey data from each school's staff *and* our

independent coding of school reports enhances confidence in our overall measure of organizational capacity.

13. Both teacher survey items and the coding of school reports were employed to obtain measures for the three components of organizational capacity -- (1.) knowledge and skills, (2.) power and authority, and (3.) shared commitment and collaborative activity to achieve a clear purpose. Our measure of the first component assesses the effort put into gaining new knowledge and skills. We couldn't obtain a more direct measure of the level or quality of knowledge and skills but think this is an adequate approximation.

For each survey item, responses from teachers at a school were averaged. For each school, we then averaged the means for all items that comprised the constructs for each component. These school averages for each of the three components were then averaged to produce a school mean on organizational capacity, and these means were then standardized across schools. Similarly, coding items for each component were averaged for each school; these were averaged to produce a school mean, and the means were standardized across schools. Standardized scores were then combined for an overall mean for each school. The overall sample mean for the standardized scores was -.01, with a standard deviation of .90. Measures of organizational capacity for each level (elementary, middle, and high) were obtained by averaging the mean standardized scores of the six or seven schools at each level. Four schools (one elementary, two middle, and one high schools) were dropped from subsequent analyses because of large discrepancies in each school's rankings between the survey

and coding measures. Because of the discrepancies, we did not feel we had a reliable measure of these schools' organizational capacity.

14. These findings on the variation in organizational capacity by level points to a potentially important area for further research, which is outside the scope of this paper. It would be interesting to compare the different challenges for developing organizational capacity, and other key elements of restructuring schools, at the different levels. Important work that examines the contexts of US secondary schools (e.g., Grossman & Stodolsky, 1995; McLaughlin, Talbert, & Bascia, 1990; Siskin, 1994) has contributed to understanding the success of reform efforts at that level. But, thus far, there has been little comparative analysis of the challenges of building capacity at different levels.

15. Although best seen as a continuum, the distinction between traditional and authentic teaching and student achievement reflects the degree to which they meet three criteria: construction of knowledge, disciplined inquiry, and value beyond school. For further discussion of this distinction and criteria for authentic student performance, see Newmann (1993b), Newmann & Associates (1996) and Newmann, Secada, & Wehlage (1995).

16. The study included samples of student written work in mathematics and social studies in one grade level at each school. The quality of student performance was scored according to standards for authentic achievement presented in Newmann, Secada & Wehlage (1995). We compared the average achievement scores between two groups of schools: the four rated highest on both accountability (strong internal or external

system) and organizational capacity and the four rated lowest on both variables. Average achievement of the schools highest in both accountability and organizational capacity exceeded average achievement of the schools lowest on both variables by about .5 between-school standard deviation. This finding on the connection between accountability and capacity to performance is consistent with the conceptual thrust of this article, but does not offer adequate evidence of a connection. Due to the small sample of schools (24), the comparison did not take into account any contextual school factors that have been shown to have major impact on achievement, such as socioeconomic status, students' prior achievement, or school size.

17. See Newmann & Wehlage (1995) and Wehlage, Osthoff & Porter (1996).

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Appendix

This is a partial listing of items for measuring accountability and organizational capacity. A complete listing appears a the technical appendix to this paper, available from the authors through the Wisconsin Center for Education Research, 1025 W. Johnson St., Madison, WI 53706.

I. Accountability System

Two researchers from each team independently answered the following questions based on school reports. Any discrepancies between researchers in the coding were resolved through discussion until reached consensus. (This was assessed with 11 items. Four are given as examples):

1. Does the school participate in a required district testing program?

3. Are individual teachers judged by standards related to student academic performance, other student outcomes, or the teachers' instructional behavior?

5. Are teachers subject to any consequences for meeting or failing to meet standards?

8. Is the school as a whole, or the principal, subject to any consequences for meeting or failing to meet standards?

II. Organizational Capacity

A. Two researchers from each team independently answered the following questions based on school reports. Any discrepancies between researchers in the coding were resolved through discussion until reached consensus. Questions were grouped into clusters representing three dimensions of organizational capacity: knowledge and skills, power and authority to act, and shared commitment and collaborative activity.

Knowledge and skills:

STFDEV1 Number of staff development days provided by district for school-wide staff development, when all staff participate, school year and summer combined (high, medium, low).

STFDEV3 Amount of staff development that focuses on student learning or teaching techniques (high, medium, low).

STFDEV4 Professional development is sustained and focused on the school's goals as contrasted to short-term or unrelated to the school's goals (high, medium, low).

Power and authority (This was assessed with 12 items. Four are given as examples):

Actual influence (high, medium, low) of teachers over:

GOV1T Curriculum

GOV2T Instruction

GOV3T Student Assessment

GOV6T Staff Development

Shared commitment and collaborative activity:

ADDTCI1 Which represents the dominant emphasis in the school?

A. The staff's primary concern is the intellectual substance of student learning; that is, construction of meaning around important ideas (high).

B. The staff's primary concern is how to implement or deal with procedural/administrative innovations; for example, teaming, shared decision making, cooperative learning techniques, new scheduling, new grading systems, etc (low).

C. The staff shows no primary emphasis on either A or B. That is, they might show equal concern for each or perhaps a different primary emphasis such as offering a trusting environment for students (medium).

PROFCOM2 Collaboration: Teachers work together on restructuring or on high quality decisions that affect their daily practice (high, medium, low).

ADDTCI3 The Center recognizes "community" in school as clear shared sense of purpose, collaboration, and collective responsibility for student learning. Considering all of these three criteria, how do you rate the extent of community among staff in the school (high, medium, low)?

B. Organizational capacity was also assessed through several items on the teacher survey. Responses across each school were averaged and then the school means from the

survey items and the school means from the coding were averaged for a combined index of organizational capacity.

Knowledge and skills:

TQ22K Teachers in this school are continually learning and seeking new ideas (6 pt. scale, strongly disagree [SD] to strongly agree [SA]).

TQ25B Staff development programs in this school permit me to acquire important new knowledge and skills (6 pt. scale, SA to SD).

Power and authority (This was assessed with 14 items. Four are given as examples):

TQ9B How much control do you feel you have in your target class over selecting content, topics, skills to be taught (6 pt. scale, no to complete control).

TQ20F I feel I have influence on the decisions within the school which directly affect me (6 pt. scale, SA to SD).

TQ21B Teacher influence over school policy: determining the content of in-service programs (6 pt. scale, no to great deal of influence).

TQ21F Teacher influence over school policy: hiring new professional personnel (6 pt. scale, no to great deal of influence).

Shared commitment and collaborative activity (This was assessed with 16 items. Four are given as examples):

TQ22B Most of my colleagues share my beliefs and values about what the central mission of the school should be (6 pt. scale, SA to SD).

TQ29 Since the beginning of the current school year, how much time per month (on average) have you spent meeting with other teachers on lesson planning, curriculum development, guidance and counseling, evaluation of programs, or other collaborative work related to instruction (6 pt. scale, less than 15 minutes to 10 or more hours).

TQ16D My success or failure in teaching students is due primarily to factors beyond my control rather than to my own efforts and ability (6 pt. scale, SA to SD, rev).

TQ22A You can count on most staff members to help out anywhere, anytime -- even though it may not be part of their official assignment (6 pt. scale, SA to SD).

Table 1. Schools with Strong, Mid-Range, and Weak Accountability Systems.*

	Strong	Mid-Range	Weak
ELEMENTARY	Careen (E) Humboldt (I)	Ashley Lamar Sumpter	Eldorado Falls River
MIDDLE	Okanagon (I)	Copan Red Lake Selway	Morris Shining Rock
HIGH	Cibola (I) Flinders (B) Island (E) South Glen (E)	Huron Wallingford	Fremont

* Strong accountability systems were externally required (E), internally generated (I), or both (B).

Table 2. Organizational Capacity in 20 Restructuring Schools.

Elementary Schools	Org Cap	Overall Rank 1-20	Middle Schools	Org Cap	Overall Rank 1-20	High Schools	Org Cap	Overall Rank 1-20
Lamar Elementary	1.64	1	Okanagon Middle	1.17	4	Cibola High	.66	6
Ashley Elementary	1.51	2	Red Lake Middle	.73	5	Huron High	.00	10
Humboldt Elementary	1.50	3	Copan Middle	.11	9	Flinders High	-.11	11
Careen Elementary	.58	7	Shining Rock Middle	-.35	13	South Glen High	-.84	17
Eldorado Elementary	.48	8	Morris Middle	-.39	14	Fremont High	-.89	18
Sumpter Elementary	-.13	12	Selway Middle	-.74	16	Wallingford High	-1.24	19
Falls River Elementary	-.41	15				Island High	-1.81	20

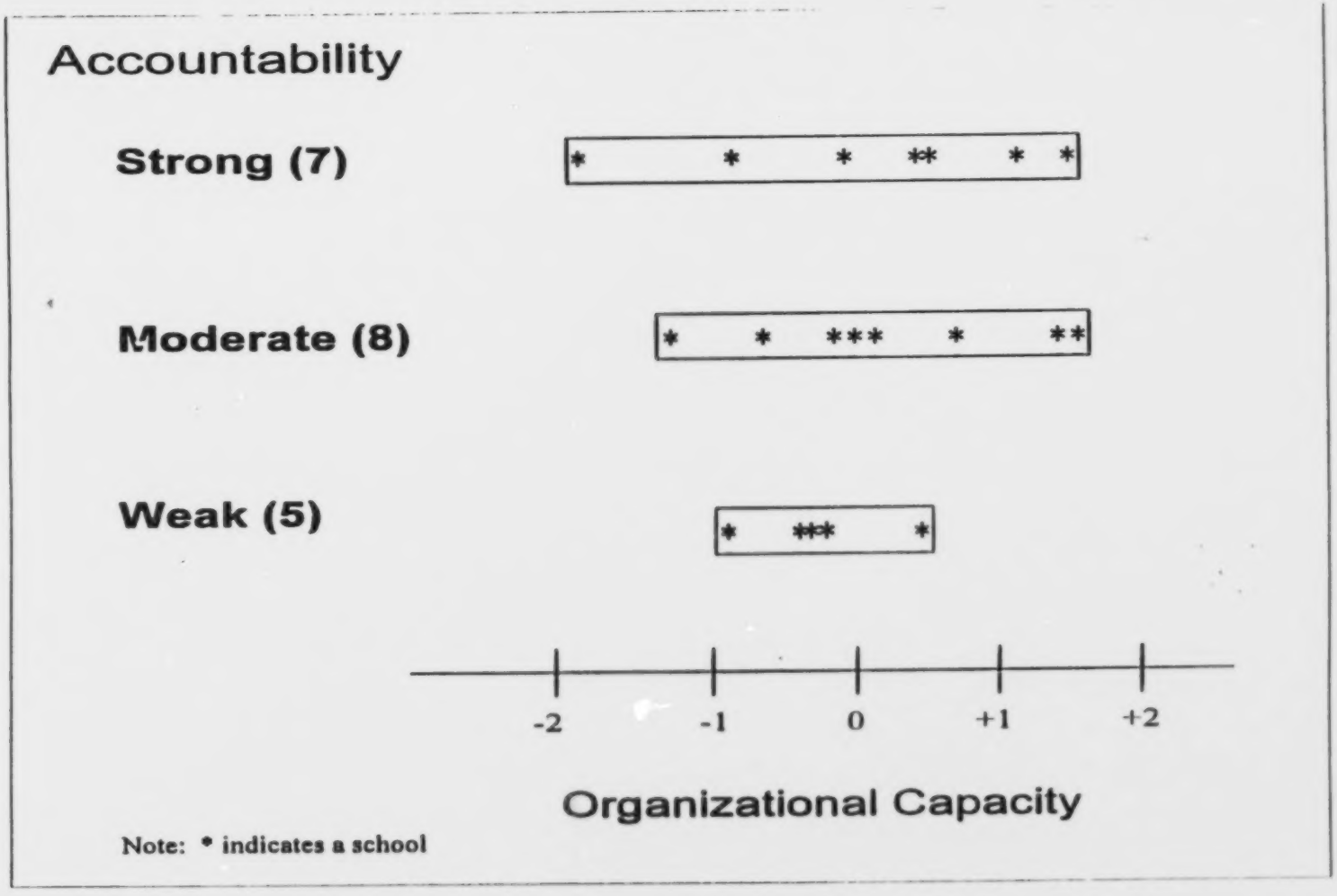

Figure 1
Schools Grouped by Accountability and Organizational Capacity*

*Scores for organizational capacity are school means standardized across schools.

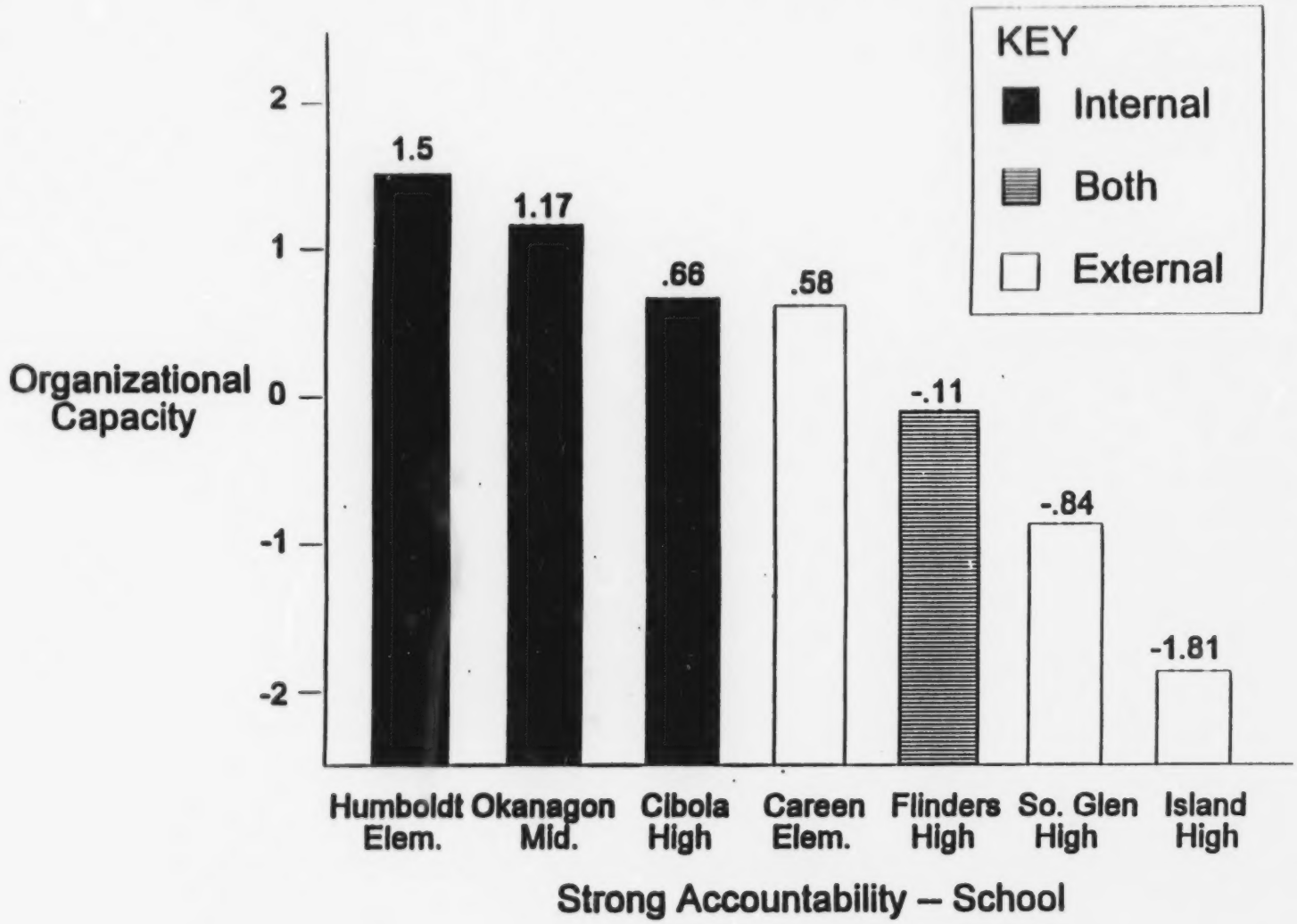

Figure 2
The Relationship of Strong Internal or External Accountability to Organizational Capacity

Technical Appendix
for

Accountability and School Performance: Implications from Restructuring Schools
by

Fred M. Newmann, M. Bruce King, & Mark Rigdon
September, 1996

This paper was prepared at the Center on Organization and Restructuring of Schools, supported by the U.S. Department of Education, Office of Educational Research and Improvement (Grant No. R117Q00005-95) and by the Wisconsin Center for Education Research, School of Education, University of Wisconsin-Madison. The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of the supporting agencies.

I. Accountability System

Two researchers from each school research team independently answered the following questions based on written research reports on each school. Any discrepancies between researchers in the coding were resolved through discussion until they reached consensus.

1. Does the school participate in a required district testing program?
2. Does the school participate in a required state testing program?
3. Are individual teachers judged by standards related to student academic performance, other student outcomes, or the teachers' instructional behavior?
4. If yes, are the standards explicit or implicit?
5. Are teachers subject to any consequences for meeting or failing to meet standards?
6. If yes, indicate the most significant consequences teachers would face.
7. Is the school as a whole, or the principal, judged by any standards related to student academic performance, other student outcomes, or teachers' instructional behavior?
8. Is the school as a whole, or the principal, subject to any consequences for meeting or failing to meet standards?
9. If yes, indicate the most significant consequences the school or principal would face.
10. To what extent have the district and state influenced the accountability system of the school (no impact to major impact).
11. To what extent have the district and state made efforts to influence the accountability system of the school (no effort to significant effort).

If a school had all components of information, standards, and consequences (either externally-required, internally-generated, or a combination), that is, positive responses to items 1-9, it was considered to have a strong accountability system. At the other extreme, if a school had no information beyond standardized testing, no standards, and no consequences, it was considered to be weak. In the middle were schools with some combination of information, standards, and consequences (regardless of source), but not all three.

II. Organizational Capacity

Organizational capacity was measured through a combination of coding items and survey responses from teachers. As explained below, standardized scores for coding and for survey indicators of organizational capacity were then combined for an overall mean for each school.

A. Coding Items. Two researchers from each school research team independently answered the following questions based on written research reports on each school. Any discrepancies between researchers in the coding were resolved through discussion until they reached consensus. Questions were grouped into clusters representing three dimensions of organizational capacity: knowledge and skills, power and authority to act, and shared commitment and collaborative activity.

Knowledge and skills:

STFDEV1	Number of staff development days provided by district for school-wide staff development, when all staff participate, school year and summer combined (high, medium, low).
STFDEV3	Amount of staff development that focuses on student learning or teaching techniques (high, medium, low).
STFDEV4	Professional development is sustained and focused on the school's goals as contrasted to short-term or unrelated to the school's goals (high, medium, low).

Power and authority:

Actual influence (high, medium, low) of teachers over:

GOV1T	Curriculum
GOV2T	Instruction
GOV3T	Student Assessment
GOV4T	Budget
GOV5T	Hiring
GOV6T	Staff Development

Actual influence (high, medium, low) of principal over:

GOV1P	Curriculum
GOV2P	Instruction
GOV3P	Student Assessment
GOV4P	Budget
GOV5P	Hiring
GOV6P	Staff Development

Shared commitment and collaborative activity:

ADDTCI1 Which represents the dominant emphasis in the school?

A. The staff's primary concern is the intellectual substance of student learning; that is, construction of meaning around important ideas (high).

B. The staff's primary concern is how to implement or deal with procedural/administrative innovations; for

example, teaming, shared decision making, cooperative learning techniques, new scheduling, new grading systems, etc (low).

C. The staff shows no primary emphasis on either A or B. That is, they might show equal concern for each or perhaps a different primary emphasis such as offering a trusting environment for students (medium).

PROFCOM2 Collaboration: Teachers work together on restructuring or on high quality decisions that affect their daily practice (high, medium, low).

ADDTCI3 The Center recognizes "community" in school as clear shared sense of purpose, collaboration, and collective responsibility for student learning. Considering all of these three criteria, how do you rate the extent of community among staff in the school (high, medium, low)?

Coding items for each component were averaged for each school; these were averaged to produce a school mean, and the means were standardized across schools.

B. Survey Items. Organizational capacity was also assessed through the following items on a teacher questionnaire.

Knowledge and skills:

TQ22K Teachers in this school are continually learning and seeking new ideas (6 pt. scale, strongly disagree [SD] to strongly agree [SA]).

TQ25B Staff development programs in this school permit me to acquire important new knowledge and skills (6 pt. scale, SA to SD).

Power and authority:

TQ9A How much control do you feel you have in your target class over selecting textbooks and other instructional materials (6 pt. scale, no to complete control).

TQ9B How much control do you feel you have in your target class over selecting content, topics, skills to be taught (6 pt. scale, no to complete control).

TQ9C	How much control do you feel you have in your target class over selecting teaching techniques (6 pt. scale, no to complete control).
TQ9D	How much control do you feel you have in your target class over disciplining students (6 pt. scale, no to complete control).
TQ20B	Staff are involved in making decisions that affect them (6 pt. scale, SA to SD).
TQ20F	I feel I have influence on the decisions within the school which directly affect me (6 pt. scale, SA to SD).
TQ21A	Teacher influence over school policy: behavior codes (6 pt. scale, no to great deal of influence).
TQ21B	Teacher influence over school policy: determining the content of in-service programs (6 pt. scale, no to great deal of influence).
TQ21C	Teacher influence over school policy: setting policy on grouping students in class by ability (6 pt. scale, no to great deal of influence).
TQ21D	Teacher influence over school policy: establishing the school curriculum (6 pt. scale, no to great deal of influence).
TQ21E	Teacher influence over school policy: determining the school's schedule (including teacher prep periods) (6 pt. scale, no to great deal of influence).
TQ21F	Teacher influence over school policy: hiring new professional personnel (6 pt. scale, no to great deal of influence).
TQ21G	Teacher influence over school policy: planning school budgets (6 pt. scale, no to great deal of influence).
TQ21H	Teacher influence over school policy: determining specific professional and teaching assignments (6 pt. scale, no to great deal of influence).

Shared commitment and collaborative activity:

TQ22B	Most of my colleagues share my beliefs and values about what the central mission of the school should be (6 pt. scale, SA to SD).
TQ22C	Goals and priorities for the school are clear (6 pt. scale, SA to SD).
TQ22G	There is a great deal of cooperative effort among staff members (6 pt. scale, SA to SD).
TQ22H	I make a conscious effort to coordinate the content of my course with other teachers (6 pt. scale, SA to SD).
TQ27B	Since the beginning of the current school year, how often have you received useful suggestions for curriculum materials from colleagues in you department (6 pt. scale, never to 10 or more times).
TQ27C	Since the beginning of the current school year, how often have you received useful suggestions for teaching techniques or student activities from colleagues in you department (6 pt. scale, never to 10 or more times).
TQ29	Since the beginning of the current school year, how much time per month (on average) have you spent meeting with other teachers on lesson planning, curriculum development, guidance and counseling, evaluation of programs, or other collaborative work related to instruction (6 pt. scale, less than 15 minutes to 10 or more hours).
TQ10	To what extent do you feel that you have been successful in providing the kind of education you would like to provide for the students in the target class (4 pt. scale, little to very successful).
TQ16B	Many of the students are not capable of learning the material I am supposed to teach (6 pt. scale, SA to SD, rev).
TQ16C	The attitudes and habits my students bring to my class greatly reduce their chances for academic success (6 pt. scale, SA to SD, rev).

TQ16D	My success or failure in teaching students is due primarily to factors beyond my control rather than to my own efforts and ability (6 pt. scale, SA to SD, rev).
TQ16F	I feel responsible for the students I teach, but not other students in the school (6 pt. scale, SA to SD, rev).
TQ20G	I sometimes feel it is a waste of time to do my best as a teacher (6 pt. scale, SA to SD, rev).
TQ20H	I am certain I am making a difference in the lives of my students (6 pt. scale, SA to SD).
TQ22A	You can count on most staff members to help out anywhere, anytime -- even though it may not be part of their official assignment (6 pt. scale, SA to SD).
TQ22E	Teachers are expected to help maintain discipline in the entire school, not just their classroom (6 pt. scale, SA to SD).

For each survey item, responses from teachers at a school were averaged. For each school, we then averaged the means for all items that comprised the constructs for each component. These school averages for each of the three components were then averaged to produce a school mean on organizational capacity, and these means were then standardized across schools.

The final indicator of organizational capacity for a school was the sum of its standardized scores based on the coding and the survey items.

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